

Claims

1. A metering device for flowable products, in particular, dairy products, comprising a metering cylinder (6), a valve cylinder (7) coaxially arranged therein, a ring-shaped metering piston (8) movable in the annular chamber (9) between metering cylinder (6) and valve cylinder (7) between an upper intake end position and a lower dispensing end position, wherein the metering piston divides the annular chamber (9) into an upper part connected to a product reservoir (3) and a lower part forming the metering chamber (11), further comprising a mouthpiece (13) that closes the metering cylinder (6) at the bottom side with the exception of a coaxial cylindrical dispensing opening (12), and comprising a central valve piston (15) that is axially movable between a lower closing position within the dispensing opening (12) of the mouthpiece (13) and an upper release position, characterized in that the valve cylinder (7) constitutes at the same time the central valve piston (15), in that the metering cylinder (6) is arranged coaxially in an outer supply cylinder (16) connected with its upper end to the product reservoir (3), and in that the metering cylinder (6) is axially movable from a lower closing position, in which it closes off the metering chamber (11) toward the exterior by engaging with its end face the mouthpiece (13), into an upper opening position, in which the metering chamber (11) is in communication with the surrounding annular supply chamber (20) in the supply cylinder (16) via a supply opening (21) between the end face of the metering cylinder (6) and the mouthpiece (13).

2. The metering device according to claim 1, characterized in that the valve piston (15) and the metering cylinder (6) are axially movable into an upper service position and the metering piston (8) into a lower service position.

3. The metering device according to claim 1 or 2, characterized in that in the service position the valve piston (15) is retracted completely into the metering cylinder (6) and both are positioned at a spacing above the metering piston (8).

4. The metering device according to claim 2 or 3, characterized in that in the service position the metering cylinder (6) is located in a position that is above its opening position during the supply phase.
5. The metering device according to one of the claims 2 through 4, characterized in that the metering piston (8) in its service position is located above the mouthpiece (13) without contacting it.
6. The metering device according to one of the claims 1 through 5, characterized in that the mouthpiece (13') is axially movably and seal-tightly supported in the lower end area of the supply cylinder (16) and is axially movable together with the metering unit comprised of the metering piston (8), metering cylinder (6), and valve piston (15) from an upper initial position into a lower dispensing position.
7. The metering device according to claim 5, characterized in that the valve piston (15) is movable upwardly into a release position when the metering device is secured in the dispensing position.